

PREDECISIONAL

November 18, 2004

Dr. Greg Rzentkowski, Director
Advanced CANDU Reactor Project Division
Directorate of Power Reactor Regulation
Canadian Nuclear Safety Commission
P.O. Box 1046, Station B
Ottawa, Ontario K1P 5S9
Canada

SUBJECT: FEEDBACK ON THE PHENOMENA IDENTIFICATION AND RANKING TABLE
(PIRT) REPORT

Dear Dr. Rzentkowski:

Thank you for your letter of September 21, 2004, in which you provided the U.S. Nuclear Regulatory Commission (NRC) with your feedback and additional information on the Phenomena Identification and Ranking Table (PIRT) report. In your letter, you indicated that you have information related to the PIRT subtopics that may be quite useful to the NRC staff as we continue our safety review of the Advanced CANDU Reactor (ACR) 700. We are very much interested in moving forward with the regulator-to-regulator discussions that you mentioned. We also see the possibility of sharing some of our analytical tools that may be of interest to you.

Nuclear Analysis

You noted that the staff of the Canadian Nuclear Safety Commission (CNSC) generally agrees with the identification and ranking of nuclear analysis phenomena. You also mentioned that the CNSC staff has documented its position and concerns regarding the neutronic design of the ACR-700 in an Interim Screening Report. We request a copy of this report for our use.

Thermal/Hydraulic Analysis

You noted that while the CNSC and NRC staffs generally agree on importance rankings, in some cases, the CNSC staff did not agree with the NRC's knowledge rankings. The reason for the disagreement appears to be the limited time available for the PIRT panel to become familiar with the CANDU Research and Development database. We expect to revisit our rankings in the future as we proceed through the design certification process and acquire additional information. We anticipate working closely with you during this process to identify relevant available data and to identify new information that may be needed. With such an identification, we expect to be able to avoid unnecessary duplication of research.

Severe Accident Analysis

You noted that the CNSC staff considers the PIRT for severe accidents to be a useful and insightful summary of the phenomena, and generally agrees with the ranking. You stated that, in the past, limited core damage accidents were treated as part of design-basis accidents in Canada, and regulatory acceptance was based on limiting the consequences of such events. We would be interested in a comprehensive listing of the acceptance criteria for such events. You also noted that severe core damage accidents did not receive as much attention at CNSC in the past as you are likely to give them in the future. We may, perhaps, be able to help you

PREDECISIONAL

Dr. Greg Rzentkowski

PREDECISIONAL

2

in bringing about a more balanced consideration of all accident types as you have indicated. For this purpose, our future discussions could include sharing analytical tools in the most effective and efficient manner.

We look forward to continuing the discussions that have been begun for finalizing the PIRT and other areas. Please do not hesitate to contact us if you have any further questions.

Sincerely,

/RA/

Farouk Eltawila, Director
Division of Systems Analysis and Regulatory Effectiveness
Office of Nuclear Regulatory Research

PREDECISIONAL

Dr. G. Rzentkowski

PREDECISIONAL

2

in bringing about a more balanced consideration of all accident types as you have indicated. For this purpose, our future discussions could include sharing analytical tools in the most effective and efficient manner.

We look forward to continuing the discussions that have been begun for finalizing the PIRT and other areas. Please do not hesitate to contact us if you have any further questions.

Sincerely,

/RA/

Farouk Eltawila, Director
Division of Systems Analysis and Regulatory Effectiveness
Office of Nuclear Regulatory Research

Distribution:

ARREB R/F
DSARE R/F
NPKadambi
KWelter
JDanna
BSosa, NRR
DBessette
DCarlson
SBasu

E:\Filenet\ML043070560.wpd

*See Previous Concurrence

OAR in ADAMS? (Y or N) Y ADAMS ACCESSION NO.: ML043070560 TEMPLATE NO. RES-006

Publicly Available? (Y or N) N DATE OF RELEASE TO PUBLIC: SENSITIVE? N

To receive a copy of this document, indicate in the box: "C" = Copy without enclosures "E" = Copy with enclosures "N" = No copy

OFFICE	ARREB*	ARREB*	C:ARREB*	NRR*	Tech Editor*	N	D:DSARE*
NAME	NPKadambi:dfw	JDanna	MGamberoni	WBeckner	PGarrity		FEltawila
DATE	11/04/04	11/04/04	11/05/04	11/09/04	11/15/04		11/18/04

PREDECISIONAL